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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/698,819

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Timothy R. Conrad

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EXAMINER

HOPKINS, CHRISTINE D

ART UNIT

PAPER NUMBER

3735

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/05/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/698,819

Applicant(s)

CONRAD ET AL.

Examiner

Christine D. Hopkins

Art Unit

3735

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17, 21 and 22 is/are pending in the application.
- 4a) Of the above claim(s) 4, 5, 12 and 13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17, 21 and 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date see continuation.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Continuation of Attachment(s) 6). Other: IDS continuation: 31 Oct 03, 23 Jan 04, 23 Feb 04, 13 Sept 04, 3 Feb 05, 28 Feb 05, 11 Oct 05, 14 Nov 05, 21 Sept 06 .

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Species I, claims 1-3, 6-11 and 14-17, in the reply filed on August 9, 2006 is acknowledged. The traversal is on the grounds that claim 1 is generic to both Species I and II and allegedly is allowable. This is not found fully persuasive because the Examiner does not concede that claim 1 is allowable in view of the rejections set forth herein. However, in view of the cancellation of claims 18-20, the examiner acknowledges that claims 1 and 10 are generic to the pending claims directed to Species I and II. Claims 4, 5, 12 and 13 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species.

Claim Objections

2. Claim 22 is objected to because of the following informalities: at line 1, "A method according to claim 10" should apparently read--An apparatus according to claim 10--. Appropriate correction is required.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claim 22 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 22 recites "wherein said static end is

directly secured to said bony structure.” The positive recitation of a tissue or bone in the body renders the claim non-statutory.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3, 7-11, 15-17 and 21-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Sohn et al. (U.S. Patent No. 5,988,171). Sohn et al. (hereinafter Sohn) disclose a device and associative methods for treating ailments such as snoring and sleep apnea. Regarding claims 1-3, 7-9 and 21, a “tissue” contractor, or sutures **32**, is placed in the tongue and attached at the hard bone of the mandible **72** by way of a screw **20** that is anchored in the bony structure. Sutures **23** can be drawn behind the base of the tongue **76** or drawn through it (col. 6, lines 44-52), the ends of the sutures may then be tied together with tension to pull the tongue forward towards the mandible **72**, thus treating those afflicted with snoring or sleep apnea by increasing the opening of a patient's airway (col. 5, lines 64-67 - col. 6, lines 1-13).

Regarding claims 10-11, 15 and 22, Sohn teaches a tissue contractor **32** placed in the tongue of a patient, having a screw **20** or “static end” and a tissue-engaging end; the tissue-engaging end being interpreted as the point or knot at which the sutures are tied together behind the tongue. Regarding claims 16-17, the device treats those

afflicted with snoring or sleep apnea by increasing the opening of a patient's airway (col. 5, lines 64-67 - col. 6, lines 1-13). The screw is anchored to the hard bone of the mandible **72**, and is attached to the sutures by way of an "attachment" or axial hole **28** (see Fig. 3 and col. 11, lines 17-23).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 6 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sohn et al. (U.S. Patent No. 5,988,171) in view of Knudson et al. (U.S. Pub. No. 2004/0073272). Sohn et al. disclose the invention as claimed, see rejection supra; however, Sohn fails to disclose the attachment of the tissue contracting device to the hard and soft palate. Knudson et al. (hereinafter Knudson) disclose an apparatus implanted within a patient for contracting a muscle within an airway of a patient, thus treating snoring. Regarding claim 6, Knudson teaches a control device **20** attached to both the soft and hard palate at opposing ends (see Fig. 6). Electrodes coupled to the control device **20** receive a signal from **20** and consequently contract the muscle, thus creating the increased size of the airway ([0031], [0034] and [0035]). Therefore, at the time of the invention it would have been obvious for one having ordinary skill in the art to have attached a tissue contractor such as that disclosed by Sohn, to the areas

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surrounding the hard and soft palate as taught by Knudson, such that a contraction of tissue would evoke an opening of the airway, reduce palatal flutter, and accordingly treat ailments such as snoring or sleep apnea.

With reference to claim 14, Knudson discloses a control device **20** connected to electrodes for applying an electrical signal to, and subsequently shortening a distance between opposite ends (one connection positionable within the vicinity of the hard palate and the other end positionable at the soft palate) of control device **20**. As a result, the muscular contraction increases an opening of a patient's airway. Therefore, at the time of the invention it would have been obvious for one having ordinary skill in the art to have positioned a tissue contractor such as that disclosed by Sohn, in an arrangement similar to that surrounding the hard and soft palate as taught by Knudson, for alleviating snoring and sleep apnea.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Pub. No. 2002/0035994 to Stevens et al. discloses a method for treating snoring.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine D. Hopkins whose telephone number is (571) 272-9058. The examiner can normally be reached on Monday-Friday, 7 a.m.-3:30 p.m..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor, II can be reached on (571) 272-4730. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Christine D Hopkins
Examiner
Art Unit 3735



Charles A. Marmor, II
Supervisory Patent Examiner
Art Unit 3735